CLAIMS

1.   A processor-readable medium comprising processor-executable instructions configured for:

requesting media content at an accelerated rate from a source, the accelerated rate being a rate that exceeds a normal playback rate;

receiving a media stream at the accelerated rate, wherein the media stream is an uninterrupted data stream of the media content that has no intentionally dropped data; and

rendering all content in the media stream at the accelerated rate.

2.   A processor-readable medium as recited in claim 1, wherein the media stream comprises a video stream and an audio stream, the rendering further comprising:

processing the video stream and the audio stream through a playback filter graph at the accelerated rate; and

implementing a pitch adjustment algorithm within the playback filter graph to process the audio stream.

3.   A processor-readable medium as recited in claim 2, wherein the media stream further comprises a non-video/non-audio data stream synchronized to the video stream and the audio stream, the rendering further comprising processing the non-video/non-audio data stream at synchronized locations within the video stream and the audio stream.

4. A processor-readable medium as recited in claim 3, wherein the non-video/non-audio data stream includes data selected from the group comprising:

script commands;

metadata; and

captions.

5. A processor-readable medium as recited in claim 1, comprising further processor-executable instructions configured for:

receiving a degraded media stream at a reduced rate, wherein the degraded media stream includes a subset of data from the media stream; and

rendering the degraded media stream at the reduced rate.

6. A processor-readable medium as recited in claim 5, wherein the degraded media stream comprises a video stream that has dropped video frames and wherein an audio stream of the media stream has been dropped.

7. A processor-readable medium as recited in claim 1, wherein the source is selected from the group comprising:

a streaming media server; and

a local storage medium.

8. A computer comprising the processor-readable medium as recited in claim 1.

9. A processor-readable medium comprising processor-executable instructions configured for:

receiving a media stream;

determining a source of the media stream;

determining if the source can deliver the media stream at an accelerated rate; and

enabling and disabling variable play speed controls depending on the source and on whether the source can deliver the media stream at the accelerated rate.

10. A processor-readable medium as recited in claim 9, wherein the enabling and disabling comprises enabling the variable play speed controls such that play speeds cannot exceed the accelerated rate at which the source can deliver the media stream.

11. A processor-readable medium as recited in claim 9, wherein the determining if the source can deliver the media stream at an accelerated rate comprises determining an average data delivery rate from the source.

12. A processor-readable medium as recited in claim 9, comprising further processor-executable instructions configured for enabling the variable play speed controls if the source is a streaming media server capable of delivering the media stream at the accelerated rate.

13. A processor-readable medium as recited in claim 9, comprising further processor-executable instructions configured for:

disabling variable play speed controls in an accelerated playback range if the source is a streaming media server that is not capable of delivering the media stream at the accelerated rate; and

enabling variable play speed controls in a decelerated playback range.

14. A processor-readable medium as recited in claim 9, comprising further processor-executable instructions configured for disabling the variable play speed controls if the source is a Web server delivering the media stream as a progressively downloaded file.

15. A processor-readable medium as recited in claim 14, comprising further processor-executable instructions configured for enabling the variable play speed controls after the media stream is completely downloaded from the Web server.

16. A processor-readable medium as recited in claim 9, comprising further processor-executable instructions configured for enabling the variable play speed controls if the source is a local media source.

17. A processor-readable medium as recited in claim 9, comprising further processor-executable instructions configured for playing back the media stream at the accelerated rate, wherein the playing back includes rendering all content within the media stream.

18. A processor-readable medium as recited in claim 9, wherein the enabling and the disabling comprise altering graphical representations of the variable play speed controls on a graphical user interface.

19. A processor-readable medium as recited in claim 9, wherein the variable play speed controls include:

a play speed control configured to vary a playback rate of the media stream between a rate that is less than a real time rate and a rate that greater than the real time rate;

a fast forward control configured to increase the playback rate of the media stream to a rate that exceeds the real time rate;

a rewind control configured to decrease the playback rate of the media stream to a negative rate;

a seek control configured to access a particular playback location within the media stream;

a next frame control configured to step the playback rate of the media stream forward one video frame at a time; and

a previous frame control configured to step the playback rate of the media stream backward one video frame at a time.

20. A processor-readable medium as recited in claim 9, wherein the source is selected from a group comprising:

local media;

a streaming media server; and

a Web server.

21.   A processor-readable medium as recited in claim 9, wherein the media stream comprises data selected from the group comprising:

audio data;

video data;

script commands;

text captions; and

metadata.

22.   A computer comprising the processor-readable medium as recited in claim 9.

23.   A processor-readable medium comprising processor-executable instructions configured for:

sending a request to a media source to stream media content from a media file at a non-real-time rate;

determining if the media source and a network link can support the non-real-time rate; and

if the media source and a network link can support the non-real-time rate, receiving and playing back the media content at the non-real-time rate.

24.   A processor-readable medium as recited in claim 23, wherein the non-real-time rate is a rate selected from the group comprising:

an accelerated rate; and

a decelerated.

25.   A processor-readable medium as recited in claim 23, wherein the non-real-time rate is the accelerated rate, the processor-readable medium comprising further processor-executable instructions configured for:

determining that the media source and/or the network link cannot support the accelerated rate; and

sending a request to the media source to drop data from the media content and to stream remaining media content from the media file.

26.   A processor-readable medium as recited in claim 25, wherein the remaining media content is streamed from the media source within a period of time equal to a period of time that would be needed to stream all the media content from the media source at the accelerated rate.

27.   A processor-readable medium as recited in claim 25, wherein data dropped from the media content is selected from the group comprising:

an audio data stream;

video frames from a video data stream; and

a non-video/audio data stream.

28.   A processor-readable medium as recited in claim 23, wherein the non-real-time rate is the accelerated rate, the processor-readable medium comprising further processor-executable instructions configured for:

determining that the media source and/or the network link cannot support the accelerated rate; and

sending a request to the media source to stream the media content stream from the media file at a normal real-time rate.

29. A computer comprising the processor-readable medium as recited in claim 23.

30. A processor-readable medium comprising processor-executable instructions configured for:

streaming a media stream to a client at a real time rate;

receiving a request from the client to deliver the media stream at an accelerated rate; and

delivering the media stream to the client at the accelerated rate.

31. A processor-readable medium as recited in claim 30, comprising further processor-executable instructions configured for:

determining that a network link cannot support the accelerated rate; and

delivering the media stream to the client at a reduced rate that is less than the accelerated rate.

32. A processor-readable medium as recited in claim 30, comprising further processor-executable instructions configured for:

determining that a network link cannot support the accelerated rate;

delivering the media stream to the client at a reduced rate that is less than the accelerated rate; and

while delivering the media stream to the client at the reduced rate, dropping data from the media stream.

33. A streaming media server comprising the processor-readable medium as recited in claim 30.

34. A media player comprising variable play speed controls configured to vary playback speed of a media stream depending on a source of the media stream and on whether the source can deliver the media stream at a requested rate.

35. A media player as recited in claim 34, further comprising a playback module configured to enable or disable the variable play speed controls depending on the source and on whether the source can deliver the media stream at the accelerated rate, the playback module additionally configured to determine the source and whether the source can deliver the media stream at a requested rate.

36. A media player as recited in claim 34, further comprising a graphical user interface (GUI) module configured to support a GUI that presents the variable play speed controls to a user and enables the user to activate the variable play speed controls.

37. A media player as recited in claim 34, further comprising an application programming interface configured to expose the variable play speed controls to programmatic control of a custom application program.

38.   A media player as recited in claim 34, wherein the variable play speed controls are selected from the group comprising:

a play speed control configured to vary a playback rate of the media stream between a rate that is less than a real time rate and a rate that greater than the real time rate;

a fast forward control configured to increase the playback rate of the media stream to a rate that exceeds the real time rate;

a rewind control configured to decrease the playback rate of the media stream to a negative rate;

a seek control configured to access a particular playback location within the media stream;

a next frame control configured to step the playback rate of the media stream forward one video frame at a time; and

a previous frame control configured to step the playback rate of the media stream backward one video frame at a time.

39.   A computer comprising the media player as recited in claim 34.

40.   A media player comprising controls for varying playback speed of a media stream, the controls comprising:

a play speed control configured to vary a playback rate of the media stream between a rate that is less than a real time rate and a rate that greater than the real time rate;

a fast forward control configured to increase the playback rate of the media stream to a rate that exceeds the real time rate;

a rewind control configured to decrease the playback rate of the media

stream to a negative rate;

a seek control configured to access a particular playback location within the

media stream;

a next frame control configured to step the playback rate of the media

stream forward one video frame at a time; and

a previous frame control configured to step the playback rate of the media

stream backward one video frame at a time.

41. A media player as recited in claim 40, further comprising a playback

module configured to enable and disable the controls to reflect a current play speed

control capability, the current play speed control capability determined by the

playback module according to a source of the media stream and whether the source

can deliver the media stream at an accelerated rate.

42. A media player as recited in claim 40, further comprising a graphical

user interface (GUI) module configured to support a GUI graphical that presents

the controls to a user and enables the user to activate the controls.

43. A media player as recited in claim 40, further comprising an

application programming interface configured to expose the controls to

programmatic control of a custom application program.

44. A computer comprising the media player as recited in claim 40.

45. A computer comprising:

means for requesting media content at an accelerated rate from a source;

means for receiving a media data stream from the source at the accelerated rate; and

means for rendering all content in the media data stream at the accelerated rate.

46. A computer as recited in claim 45, wherein the media data stream comprises a video data stream, an audio data stream, and a non-video/audio data stream synchronized to the video data stream, the means for rendering further comprising:

means for processing the video data stream and the audio data stream through a playback filter graph at the accelerated rate;

means for implementing a pitch adjustment algorithm within the playback filter graph to process the audio data stream; and

means for processing the non-video/audio data stream at synchronized locations within the video data stream.

47. A computer as recited in claim 45, further comprising:

means for receiving a degraded media data stream at a reduced rate, wherein the degraded media data stream includes a subset of data from the media data stream; and

means for rendering the degraded media data stream at the reduced rate.

48. A computer comprising:

means for receiving a media stream;

means for determining a source of the media stream;

means for determining if the source can deliver the media stream at an accelerated rate; and

means for enabling and disabling variable play speed controls depending on the source and on whether the source can deliver the media stream at the accelerated rate.

49. A computer as recited in claim 48, wherein the means for enabling and disabling comprises means for enabling the variable play speed controls such that play speeds cannot exceed the accelerated rate at which the source can deliver the media stream.

50. A computer as recited in claim 48, wherein the means for determining if the source can deliver the media stream at an accelerated rate comprises means for determining an average data delivery rate from the source.

51. A computer as recited in claim 48, further comprising means for enabling the variable play speed controls if the source is a streaming media server capable of delivering the media stream at the accelerated rate.

52. A computer as recited in claim 48, further comprising:

means for disabling variable play speed controls in an accelerated playback range if the source is a streaming media server that is not capable of delivering the media stream at the accelerated rate; and

means for enabling variable play speed controls in a decelerated playback range.

53. A computer as recited in claim 48, further comprising means for disabling the variable play speed controls if the source is a Web server delivering the media stream as a progressively downloaded file.

54. A computer as recited in claim 53, further comprising means for enabling the variable play speed controls after the media stream is completely downloaded from the Web server.

55. A computer as recited in claim 48, further comprising means for enabling the variable play speed controls if the source is a local media source.

56. A computer as recited in claim 48, further comprising means for playing back the media stream at the accelerated rate, wherein the playing back includes rendering all content within the media stream.

57. A computer as recited in claim 48, further comprising means for altering a graphical user interface having representations of the variable play speed

controls to reflect the enabling and the disabling of the variable play speed controls.

58.   A computer as recited in claim 48, wherein the variable play speed controls include:

a play speed control configured to vary a playback rate of the media stream between a rate that is less than a real time rate and a rate that greater than the real time rate;

a fast forward control configured to increase the playback rate of the media stream to a rate that exceeds the real time rate;

a rewind control configured to decrease the playback rate of the media stream to a negative rate;

a seek.control configured to access a particular playback location within the media stream;

a next frame control configured to step the playback rate of the media stream forward one video frame at a time; and

a previous frame control configured to step the playback rate of the media stream backward one video frame at a time.

59.   A computer comprising:

means for sending a request to a media source to stream media content from a media file at a non-real-time rate;

means for determining if the media source and a network link can support the non-real-time rate; and

means for receiving and playing back the media content at the non-real-time rate if the media source and a network link can support the non-real-time rate.

60.   A computer as recited in claim 59, wherein the non-real-time rate is a rate selected from the group comprising:

an accelerated rate; and

a decelerated.

61.   A computer as recited in claim 59, wherein the non-real-time rate is the accelerated rate, the computer further comprising:

means for determining that the media source and/or the network link cannot support the accelerated rate; and

means for sending a request to the media source to drop data from the media content and to stream remaining media content from the media file.

62.   A computer as recited in claim 61, wherein data dropped from the media content is selected from the group comprising:

an audio data stream;

video frames from a video data stream; and

a non-video/audio data stream.

63.   A computer as recited in claim 59, wherein the non-real-time rate is the accelerated rate, the computer further comprising:

means for determining that the media source and/or the network link cannot support the accelerated rate; and

means for sending a request to the media source to stream the media content stream from the media file at a normal real-time rate.

64. A streaming media server comprising:

means for streaming a media stream to a client at a real time rate;

means for receiving a request from the client to deliver the media stream at an accelerated rate; and

means for delivering the media stream to the client at the accelerated rate.

65. A streaming media server as recited in claim 64, further comprising:

means for determining that a network link cannot support the accelerated rate; and

means for delivering the media stream to the client at a reduced rate that is less than the accelerated rate.

66. A streaming media server as recited in claim 64, further comprising:

means for determining that a network link cannot support the accelerated rate;

means for delivering the media stream to the client at a reduced rate that is less than the accelerated rate; and

means for dropping data from the media stream while delivering the media stream to the client at the reduced rate.

67. A streaming media server comprising a variable speed streaming module configured to receive a request to stream media content at an accelerated

rate and to stream the media content at the accelerated rate without dropping any data from the media content, the accelerated rate being a rate that exceeds a real time playback rate of the media content.

68. A streaming media server as recited in claim 67, wherein the variable speed streaming module is further configured to control variable play speed controls of a media player executing on a client computer.

69. A method comprising:

rendering a stream of media at a real time playback rate;

receiving a request to render the stream of media at an accelerated rate;

sending a request to have the stream of media delivered at the accelerated rate;

receiving the stream of media at the accelerated rate; and

rendering the stream of media at the accelerated rate.

70. A method as recited in claim 69, wherein the media stream comprises a video stream and an audio stream and wherein rendering comprises:

processing the video stream and the audio stream through a playback filter graph at the accelerated rate; and

implementing a pitch adjustment algorithm within the playback filter graph to process the audio stream.

71. A method as recited in claim 70, wherein the media stream further comprises a non-video/non-audio data stream synchronized to the video stream and

the audio stream and wherein rendering further comprises processing the non-video/non-audio data stream at synchronized locations within the video stream and the audio stream.

72. A method comprising:

receiving a media stream from a source;

determining the source of the media stream;

determining if the source can deliver the media stream at an accelerated rate; and

enabling or disabling variable play speed controls depending on the source and on whether the source can deliver the media stream at the accelerated rate.

73. A method as recited in claim 72, further comprising:

enabling the variable play speed controls if the source is a streaming media server capable of delivering the media stream at the accelerated rate; and

disabling the variable play speed controls if the source is a streaming media server that is not capable of delivering the media stream at the accelerated rate.

74. A method as recited in claim 72, wherein the source is a Web server delivering the media stream as a progressively downloaded file, the method further comprising:

disabling the variable play speed controls while the progressively downloaded file is being delivered; and

enabling the variable play speed controls after the progressively downloaded is completely downloaded.